Whether other similar anti-allergic drugs would give the same action in such patients is not yet know. However, in one of the cases reported by Budnitz, Pyribenzamine was substituted for Benadryl and the improvement gained was lost. Benadryl was then resumed, with a return of relief in three days.

SUMMARY

Two cases in which patients with paralysis agitans were maintained on Benadryl are reported. Partial relief of symptoms referable to the disease was noted in both patients.

Benadryl seems to be of benefit in cases of paralysis agitans, either as a therapeutic agent in itself or as a synergist with another drug of the parasympathetic-inhibitory group, or both. No significant untoward reactions have been demonstrated.

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Acute Volvulus of the Cecum — A Method of Diagnosis, with Report of a Case

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ACUTE volvulus of the cecum is a rarely encountered clinical entity. Fewer than 400 cases have been reported in the literature since the disease was first described by Rokitansky[1] in 1837. It is remarkable that the great majority of these cases have been reported from Russia and the North European countries. To date, no satisfactory explanation has been offered as to this unusual geographical distribution. The lesion has been estimated to be accountable for from 1 per cent to 11.6 per cent of all cases of acute intestinal obstruction, not including strangulated external hernia. The figure of 1 per cent represents that given by American observers. There appears to be no characteristic age incidence, but the disease occurs oftener in males than in females, in a ratio of 3:1. In the older reports of series of cases, mortality figures were as high as 50 per cent where the patients were treated surgically, and as high as 100 per cent with conservative treatment. Today a fair generalization is that the longer operative intervention is delayed, the higher will be the operative morbidity and mortality.

CASE REPORT

A 37-year-old native American housewife entered the hospital at 6 p.m. on November 12, 1947, complaining of cramping abdominal pain which had been present since 10 o'clock the previous night. The family history was non-contributory. The patient had never been pregnant, never had an operation, and her general health had been fairly good, although she was quite thin and had never been able to properly gain weight. She stated that she had had no previous attacks of this character but for the preceding two or three weeks had been having two or three loose bowel movements each day, with some mild cramping. There had been no blood or mucus in the stool. The present pain developed suddenly and had persisted, with frequent cramplike exacerbations. The patient said she had vomited four times before entry and had noticed distention of the abdomen.

Findings on physical examination were essentially normal, save for the abdominal findings. The blood pressure was 150 mm. of mercury systolic and 90 diastolic. The abdomen was moderately distended, with a sausage-shaped mass present in the mid-lower quadrant running transversely across the abdomen from right to left just below the umbilicus. The abdomen was diffusely tender and there was pronounced rebound tenderness.

Roentgenograms taken at this time showed a large closed-loop type of bowel obstruction, and it was the authors' opinion that there was volvulus of either the cecum or the sigmoid colon. A Harris tube was passed orally and a colonic flush given rectally, with no relief of the distention. Fluids were given intravenously. The blood count taken at this time showed 3,800,000 erythrocytes with hemoglobin value of 80 per cent, and 10,500 leukocytes with 89 per cent polymorphonuclear cells.

Because there was some difficulty in persuading the patient's family to permit operation, this had to be postponed until the following morning. During the night the cramplike abdominal pain continued and a roentgenogram taken early on November 13, 1947, showed an increase in size of the dilated closed loop of bowel.

The patient was given a transfusion of blood, and when the peritoneal cavity was opened a moderate amount of serosanguineous fluid was found to be present. A large mass about the size of two fists lay transversely in the abdominal cavity at the level of the umbilicus. This mass consisted of the cecum and the proximal half of the ascending colon,

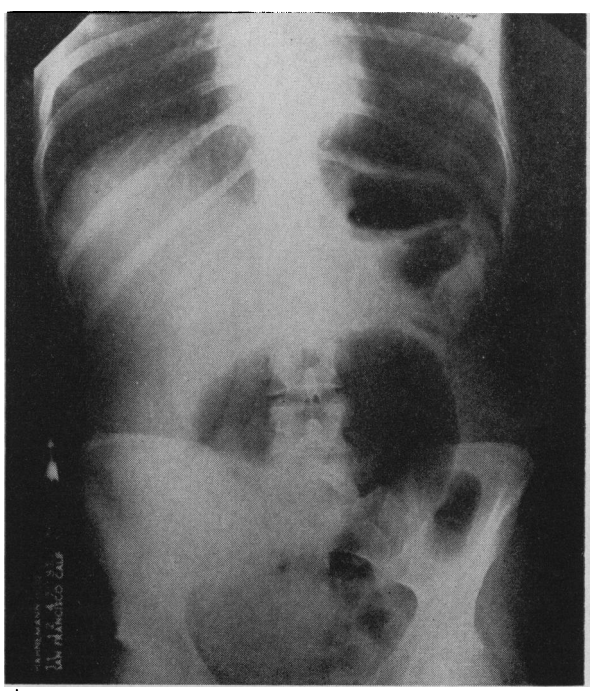

Figure 1.—Twelve hours after onset of pain. Note dilated loop of large bowel lying on left side of abdomen.

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which had rotated clockwise upon itself for 180 degrees. The walls of the cecum and the colon were red and edematous, but no actual gangrenous areas were present. The ileum appeared normal and there were no large nodes present in the mesentery of the ileum. The remainder of the abdominal viscera were normal, including the large bowel which was patent throughout beyond the site of the twist. The volvulus was easily untwisted. No attempt was made to fix the cecum or colon, due to the poor condition of the bowel wall. Following the release of the volvulus, pressure on the dilated cecum sent large quantities of gas coursing through the large bowel. Immediately following the operation a check-up x-ray film of the abdomen showed adequate air throughout the large bowel, with relief of the obstruction.

Figure 2.—Sixteen hours after onset of pain. Loop still on left side, larger and ascending in abdomen.

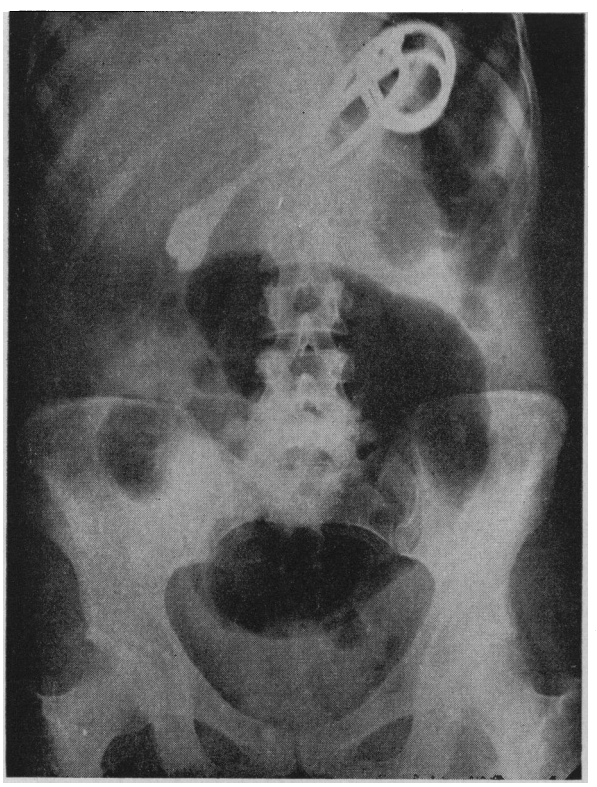

Figure 3.—Twenty-four hours after onset of pain—loop not relieved by intestinal intubation.

DISCUSSION

In the authors' opinion, volvulus of the cecum and ascending colon, one of the rarer causes of acute intestinal obstruction, is a disease which in many instances can be properly diagnosed before operation. This is contrary to the views of most of the authors of recent papers on the subject. Sweet[2] stated that the "diagnosis is rarely made before operation or autopsy." The authors feel that two most important diagnostic aids are (1) the taking of a proper history and (2) a proper interpretation of x-ray films of the abdomen. In line with the taking of proper history, inquiry must be made as to previous attacks of sharp, cramplike abdominal pain accompanied on occasion by some distention and even occasionally by the presence of a lower abdominal mass. Since the pathological rotation and twisting of the ileocolic loop is dependent upon anatomical variations of malrotation, maldescent, or malfixation of the right portion of the colon, one may assume that this portion of the bowel might have been subject to volvulus of varying degrees at several previous times during the patient's life. When the episodes of pain and distention can be linked to preceding bouts of constipation, diarrhea, violent exercise, or sudden change of position, chronic or subacute ileocolic volvulus, with self-relief of the twist, should be suspected.

Early plain films of the abdomen are important, particularly in correlation with the history and physical findings. In all cases, intestinal volvulus becomes a closed-loop obstruction and rapid distention of the strangulated loop and

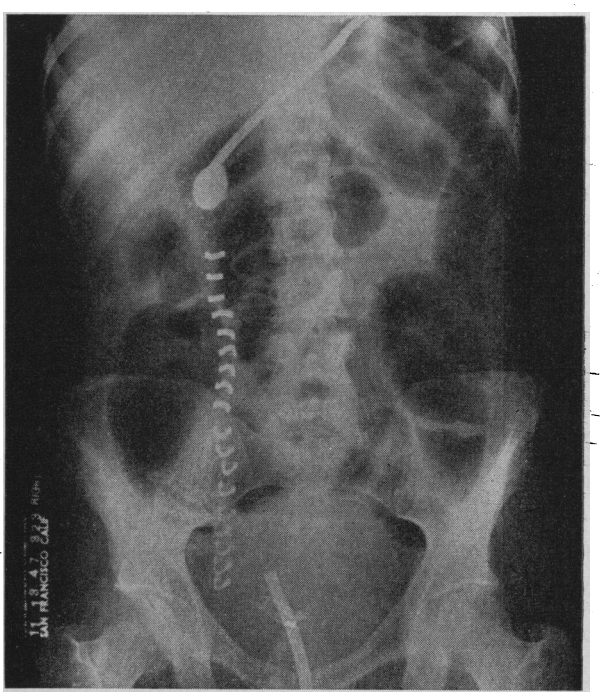

Figure 4.—Picture taken immediately following operation; obstruction relieved; air throughout large bowel.

of the abdomen then takes place. This is obvious early in the x-ray films. If the enlarged loop does not respond to the deflating measures of intubation with a Harris tube or enemata and rectal tubes, suspicion of closed-loop obstruction should be aroused. In the case here reported the x-ray films, taken at ten-hour intervals, showed this quite well. They showed a gain in size of the closed-loop obstruction despite these measures. As a general rule, obstruction of the large bowel gives symptoms far less acute than does a high obstruction of the small bowel. However, when the large bowel obstruction is of the closed-loop variety, that is, a volvulus either of the ileocolic segment or of the sigmoid, the attendant symptoms are as rapid in onset and as severe in course as are those of upper small bowel obstruction. This too, then, is of diagnostic significance in volvulus of the large bowel.

It will be noted in the x-ray films that the dilated closed loop of obstructed bowel occupies the mid- and left lower quadrant of the abdomen, lying convexly to the left. This was borne out by the physical findings in the abdomen of the patient, the palpable mass lying transversely across the abdomen to the left. Because in by far the greater percentage of cases of volvulus of the cecum, the volvulus rotates in a clockwise direction to the left around the apex of the lowest portion of the fixed ascending colon, it is easy to see the reason for this. Volvulus of the sigmoid colon presents no such picture. The large dilated closed loop in this syndrome rises from the pelvis from a triangular terminal area and balloons into a loop which may occupy any portion of the lower abdomen, right or left. Volvulus of the terminal portion of the ileum, which accounts for about 47 per cent of all cases of intestinal volvulus as against 42 per cent for volvulus of the cecum and 11 per cent for volvulus of the sigmoid colon, may cause some diagnostic difficulty. In fact, one roentgenologist who was consulted in the case here reported, read the films as volvulus of the lower portion of the ileum. In such circumstances x-ray films should be of assistance if the haustral markings of the colon can be made out. In addition, the colon will usually show larger fluid levels present at an early stage of obstruction than will the small bowel.

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Niemann-Pick's Disease and its Relationship to the Lipoidoses

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THE group of lipoid diseases known as the xanthomatoses includes: (1) the primary type which is associated with cholesterosis, (2) the secondary type due to hyperlipemia, (3) the various types of xanthomatous deposits in tumors and inflammatory tissue, and (4) the metaplastic reticular and histiocytic diseases of Gaucher and Niemann-Pick which are associated with the specific lipoid materials kerasin and sphyngomyelin respectively. To these might be added the condition of familial amaurotic idiocy or Tay-Sach's disease. The term xanthomatosis is an unfortunate one to use in describing these diverse diseases. From its derivation it implies a yellow color such as that produced by cholesterol and bears no relationship to the various types of lipoids and lipochromes included under its heading. Pick himself[5] decried the term and suggested "lipoidosis" as a better one. Other authors[3, 8] feel that the term "xanthomatosis" should be restricted to those conditions in which cholesterol is the predominant lipoid. The lipoid nature of the chemical substances involved in the group is illustrated in Table 1.

The pathogenesis of Niemann-Pick's and Gaucher's diseases appears to be due to a disturbance of lipoid metabolism, the nature of which is controversial. Improved methods of chemical fractionation of lipoids in tissues have added much to knowledge of the subject. Gaucher felt that the disease bearing his name was a splenic neoplasm. Pick[4] suggested that hypercerebrosidemia with secondary storage of cerebrosides in the reticulum cells caused the condition, and he was the first proponent of the metabolic nature of this group of diseases. He also disagreed that Niemann-Pick's or Gaucher's disease represent lipoid histiocytosis. Thannhauser[7] and his associates elaborated the cellular theory,

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TABLE 1.—*Chemistry of Lipoidoses*

I. FATS: Glycerin + (Fatty acid, Fatty acid, Fatty acid)

II. LIPOIDS:

A. STEROLS

Cholesterol and its derivatives (Hand-Schuller-Christian)

B. PHOSPHATIDS

1. Glycerin + (Fatty acid, Fatty acid, PHOSPHORIC ACID+choline=LECITHIN or +ethanolamine=CEPHALIN)

2. Sphingosin + (Fatty acid, PHOSPHORIC ACID+choline=SPHINGOMYELIN (Niemann-Pick))

C. CEREBROSIDES

Sphingosin + (Fatty acid, GALACTOSE=KERASIN (Gaucher))